



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22311-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,055	06/22/2001	Lubert Stryer	P 0277150	6876

909 7590 09/30/2003

PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

GOLDBERG, JEANINE ANNE

ART UNIT PAPER NUMBER

1634

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/886,055

Applicant(s)

STRYER ET AL.

Examiner

Jeanine A. Goldberg

Art Unit

1634

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-11, drawn to a method for representing sensory perception of one or more odorants, classified in class 435, subclass 7.1.
 - II. Claim 12, drawn to a biosensor comprised of the n ligand-binding domains or olfactory receptors, classified in class 435, subclass 287.1.
 - III. Claim 13, drawn to a method for producing a database of odorant representations, classified in class 707, subclass 3.
 - IV. Claim 14, drawn to a database, classified in class 707, subclass 100.
 - V. Claims 15, drawn to a method of identifying an unknown odorant using a database, classified in class 707, subclass 6.
 - VI. Claim 16, drawn to a method producing an artificial odorant, classified in class 436, subclass 501.
 - VII. Claim 17, drawn to an artificial odorant, classified in class 514 subclass 1.
 - VIII. Claim 18, drawn to a method of identifying a primary odorant related to sensory perception, classified in class 435, subclass 7.1.
 - IX. Claim 19, drawn to a primary odorant, classified in class 514, subclass 1.
 - X. Claim 20-21, drawn to a method of identifying a compound which block activation by an odorant, classified in class 436, subclass 501.

XI. Claim 22, drawn to a compound which blocks activation of an olfactory receptor, classified in class 536, subclass 23.1; 530/350, for example.

2. The inventions are distinct, each from the other because of the following reasons:

A) The inventions of Group 1, 3, 5, 6, 8 and 10 are patentably distinct methods because they each have different objectives, different uses, different reagents and different method steps. The method of Group 1 is for representing sensory perception of one or more odorants. The method of Group 3 is for producing a database of odorant representations. The method of Group 5 is a method of identifying an unknown odorant using a database. The method of Group 6 is a method producing an artificial odorant. The method of Group 8 is a method of identifying a primary odorant related to sensory perception. Alternatively, the method of Group 10 is a method of identifying a compound which block activation by an odorant. Therefore the methods are distinct over one another.

B) The inventions of Groups 2, 4, 7, 9, 11 are patentably distinct in that they each have unique structures and functions. The structures and functions of a biosensor are used for screening methods. The database is a computer ready storage system for information. An artificial odorant and a primary odorant are products with a variety of structures and functions. Finally the compound which blocks activation of a receptor differs from the receptor itself. Therefore, for these reasons, the inventions are novel and unobvious over each other.

C) Group (1 and (2, 4, 7, 9, 11)) and (3 and (2, 7, 9, 11)) and (5 and (2, , 7, 9, 11)) and (6 and (2, 4, 9, 11)) and (8 and (2, 4, 7, 11)) and (10 and (2, 4, 7, 9)) are

patentable distinct inventions because the biosensor of Group 2, the database of Group 4, the artificial odorant of Group 7, the primary odorant of Group 9 and the compound which blocks activation of Group 11 is not relied upon in each of the methods.

Therefore, the inventions are novel and unobvious over one another.

D) Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the biosensor of Group II may be used in a materially different method such as raising antibodies, compound screening methods or nucleic acid/protein ligand binding assay.

E) Inventions 3 and 4 are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the database may be made by a different method including manual input of data, computer generated database processing.

F) Inventions 4 and 5 are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the database

may be used in a materially different method such as storing data for materially different information and purpose.

G) Inventions (6 and 7) and (8 and 9) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the artificial odorant may be produced by a different method. The artificial odorant may be synthetically produced without any measuring, generating or comparing to a database. Additionally, the primary odorant may be identified and made by mere isolation rather than particular identification steps.

H) Inventions 10 and 11 are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the compound which blocks activation of an olfactory receptor may be made in a materially different way. For example the compound may be isolated or directly synthesized without a method of identification.

Restriction Requirement Applicable to All Groups:

3. The claims are directed to over 255 olfactory receptors. Each sequence is patentably distinct because they are unrelated sequences, i.e. these sequences are

unrelated because the protein encoded by these sequences differ in structure and in function and in biological activity. A restriction is applied to each Group. For an elected Group drawn to amino acid sequences, the Applicants must further elect a single amino acid sequence. For an elected Group drawn to nucleotide sequences, the Applicants are permitted to elect a single nucleic acid sequences (See MPEP 803.04).

The claims contains 255 individual, independent and distinct sequences in alternative form. Accordingly, these claims are subject to restriction under 35 U.S.C. 121 as outlined in 1192 O.G. 68 (November 19, 1996).

Different proteins are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute independent and distinct inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide sequences are presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq.

Should applicant traverse on the ground that the nucleic acids are not patentably distinct, applicant should submit evident or identify such evidence now of record showing the species to be obvious variant or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other inventions.

4. A telephone call was made to Robin Teskin on September 24, 2003 to request an oral election to the above restriction requirement, but did not result in an election being made.


Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Jeanine Goldberg whose telephone number is (703) 306-5817. The examiner can normally be reached Monday-Friday from 6:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones, can be reached on (703) 308-1152. The fax number for this Group is (703) 305- 3014.

Any inquiry of a general nature should be directed to the Group receptionist whose telephone number is (703) 308-0196.


Jeanine Goldberg
Patent Examiner
September 25, 2003